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WARRON

Eastern Barred Bandicoot Newsletter

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Parklands Population Thriving

Amy Winnard

In 2006 the Department of Sustainability and Environment with support from Integrated Tree Cropping and the Glenelg-Hopkins Catchment Management Authority, spent 12 months removing foxes from the Hamilton Community Parklands, upgrading the predator-barrier fence and making the reserve entirely

fox free, in preparation for a bandicoot release.

On 25th June 2007, after a number of high rainfall events and no recent fox incursions, 16 female and eight male Eastern Barred Bandicoots, bred at Melbourne Zoo, were released into the reserve at four locations considered optimal habitat. Monitoring by trapping commenced one week after release to check body condition and determine which areas bandicoots were occupying. Any bandicoots

with more than 15% weight loss were to be returned to Melbourne Zoo. As with any 'hard release' some weight loss was expected as bandi-



Wild bred juvenile caught in the Parklands

coots learned how to locate their own food. Weight loss was minimal. This is an excellent result and an indication of good quality habitat with a large number of accessible invertebrate prey, such as worms, crickets and beetles.

After three weeks in the Parklands, four of the nine females trapped had pouch young. With a gestation of just 12 days these bandicoots must have started breeding shortly after release; another indication that

the current condition of the Parklands habitat is ideal for bandicoots. The first wild born bandicoot was captured 16 weeks after release; at just 365 g she was no more than three months old and had one five day old pouch young.

A second release of two female and four male bandicoots occurred on 12th November 2007. Again, moni-

toring occurred by trapping one and three weeks after release and minimal weight loss was observed in all bandicoots caught. Of the 30 bandicoots released in 2007 only three have not been recaptured.

During the last trapping in December, most females had pouch young or were weaning; for most, this was the second known litter since June 2007. A total of eight wild born juveniles and 77 pouch young have been

(Continued on page 2)

**This result ...
highlights how
quickly
bandicoot
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can increase ...**

(Continued from page 1)

captured. This result is much better than anticipated and highlights how quickly bandicoot populations can increase given optimal conditions. Bandicoots have now spread throughout the majority of the Parklands, even areas considered suboptimal habitat, now contain bandicoots.

Patrols of the predator barrier fence are carried out three times a week so that any necessary maintenance can be identified and fixed as quickly as possible. Spotlight searches for foxes and cats also occur regularly within the Parklands

and the reserve has remained fox free since the first bandicoot release.



Petal, released June 2007

Melbourne University PhD student, Amy Winnard will continue to monitor this population once every three months, to determine what

habitat characteristics are important to bandicoots and how different seasons effect population size, breeding and habitat use. This will lead to a better understanding of which habitat characteristics are important for bandicoot survival. The long term outcome of this research will result in improved management practises at other reintroduction sites, so that bandicoot populations can remain stable during unfavourable environmental conditions, such as drought, and thrive during periods of favourable conditions.

'Coots Out-Foxed at Woodlands?

Tamara Karner

After six years of working on the bandicoot program at Woodlands, Ranger Katrina Lovett has moved to a posting at the Otways. The Ranger In Charge of the Grasslands Unit for ten years, Fiona Smith has also moved on to a position with the

Compliance Branch within Parks Victoria.

These major personnel changes have lead to some new people managing the bandicoot program at Woodlands. Ranger Tamara Karner has worked for Parks Victoria for six years in a variety of different parks including Wilson's Prom, the Grampians and the Alps, working most

recently with the threatened Leadbeaters Possum in the Central Highlands of Victoria, based at Marysville. Tamara is heading the bandicoot program at Woodlands.

Acting Ranger In Charge, Brendan Sullivan comes from a strong environmental background, having worked at Plenty Gorge in the Environment Team Leader Role for seven years. He is very familiar in working in urban environments and will bring a fresh approach to the Grasslands Team.

April to Dec 07

The Back Paddock fence has once again been the focus for the bandicoot program. Fence maintenance is an ongoing issue with fox breaches increasing during the breeding season. From April to December 2007, nine foxes were destroyed including five

mature males. The removal of these males has hopefully made breeding difficult. Evidence for this may come from a young female fox, possibly one year old, being destroyed in the Back Paddock having no cubs and not pregnant. Two juveniles were also destroyed. In addition to fox control approximately 50 rabbits were removed.

Attention to the bandicoot pens will take a priority in 2008. Some efforts will be made to try and secure the fences and maintain a predator free environment, in the hope that there are still some bandicoots residing there. Two new infrared cameras have been purchased and will be set up at potential bandicoot locations. Some spotlight monitoring and trapping will be conducted in order to determine if a population is still present at Woodlands.



**Grassy woodland
habitat at Woodlands
Historic Park**

Research on Tasmanian EBBs

Shannon Troy

The Tasmanian Department of Primary Industries and Water recently conducted a risk assessment to rank the species most at risk of decline with fox establishment. The Tasmanian Eastern Barred Bandicoot was identified as an 'at risk' species, and research funded by the Australian Department of Environment, Water, Heritage, and Arts' 'Fox Free Tasmania' is now underway to collect data on the abundance, distribution and population genetics of this species across Tasmania. Megan Lutton, undertaking an honours year in the Department of Genetics at The University of Melbourne (supervised by Dr. Andrew Weeks and Dr. Paul Mitrovski), will extract DNA

from tissue samples taken during trapping and conduct a population genetic analysis using molecular markers. This analysis will determine genetic diversity and population structure within Tasmanian Eastern Barred Bandicoot populations and help to develop management units for conservation.

To date, 47 individuals have been captured over 446 trap nights from two sites in southern Tasmania. In northern Tasmania, zero individuals have been trapped over 800 trap nights, although there is evidence for their recent presence from local anecdotes and signs of digging. Eastern Barred Bandicoot numbers are believed to 'boom and bust' in Tasmania,

and the drought may be causing a population decline in the north. Previous monitoring of Eastern Barred Bandicoots has focussed on populations in the Huon Valley in southern Tasmania. The majority of the species range that is assumed to have Eastern Barred Bandicoots has never been monitored. Our trapping results suggest that Eastern Barred Bandicoots may be sparse in parts of the assumed Tasmanian range. This research will help determine other Tasmanian Eastern Barred Bandicoot hotspots, and lead to a better understanding of their population dynamics to aid ongoing monitoring and management.



This analysis will determine genetic diversity and population structure within Tasmanian bandicoots

Mooramong Update

Jim O'Brien & David Coutts

Despite the lack of a predator-barrier fence, the Mooramong population has always been relatively stable, with bandicoots captured at each trap session. In February and June 2007, 100 traps were set around the homestead where bandicoots are regularly observed; 11 and nine bandicoots were caught respectively. In October 2007 the trapping grid was expanded to incorporate the nature reserve. A total of 164 traps were set over two nights. The result was very disappointing with only two bandicoots caught on the first night and four on the second. All bandicoots were trapped around the homestead. Of

the 26 bandicoots caught in 2007, two were cleanskins (no microchip), and 17 were female, carrying a total of 32 pouch young. No bandicoots or their digs have been observed in the nature reserve for at least two years. This is presumed to be due to a lack of soil moisture, higher fox predation and a small bandicoot population.

The fox control programme continued in 2007 with intensive baiting in February/March and July/August. This was timed to reduce the number of foxes prior to the breeding season. The Napoleons Fox Club conducts annual day shoots and a couple of local shooters are employed

to carry out regular night shoots. They patrol the farm and nature reserve at least once a month, sometimes returning fortnightly. A total of 16 foxes and three cats were destroyed at Mooramong by the shooters in 2007. Fox dens are monitored regularly and fumigated when active. Three new dens were discovered and treated during the year.

Baiting early in 2008 has been hampered by the inability to buy fox baits from the newly licensed commercial operators. It is hoped baiting can recommence in early February.



Jim releasing a bandicoot

Zoo News

Peter Courtney



Just released

There are currently four nominated release sites for Eastern Barred Bandicoots in Victoria. Due to concerns about the level of predator reduction programs at two of these sites, releases are now only made into the Hamilton Parklands and Mt

Rothwell. Both these sites have functional predator barrier fences and predator control programs in place. The other two sites are Mooramong and Woodlands Historic Park.

Seven institutions are involved in the captive housing and breeding of bandicoots, these are; Melbourne Zoo, Werribee Open Range Zoo,

Serendip Sanctuary, Monarto, Taronga, Kyabram Fauna Park and Remabi Park. The Captive Management Team is required to supply 50 animals per year for release back into the wild. With 11 breeding pairs and Eastern Barred Bandicoots being prolific breeders, we are readily able to supply the animals needed for release. Last year, 29 bandicoots were bred for release into the Hamilton Parklands.

Another holding area is being trialled for Eastern Barred Bandicoots; this is the Basalt Plains exhibit at the Werribee Open Range Zoo. This exhibit opened in 1998, and in 2007 had extensive work performed on the perimeter fence. This 11 acre exhibit replicates the grassy wood-

land terrain found in the area prior to European arrival. Female Eastern Barred Bandicoots will be released into this exhibit in March 2008 and males will be introduced later for breeding. The progeny from these animals will be used in translocations to supplement populations at reintroduction sites. The initial release will be monitored using tail transmitters on each animal.

The Basalt Plains exhibit is open to the public everyday and night walks are planned in the future so that members of the public can view Eastern Barred Bandicoots in their natural habitat. Other things that can be seen are Brolgas, Cape Barren Geese, Emus, Red-necked Wallabies, Eastern Grey Kangaroos and a

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Search for Wild Bandicoots

Peter Goldstraw

In 2006, a search for any remaining wild Hamilton bandicoots commenced. Peter Goldstraw and Lauren Eddy trapped the Jackson Estate block and the Police Paddock in August; no bandicoots were caught and no digs were evident. The Grange Burn, Kennedy Oval and the south and west sides of the tip were also inspected for digs but none were found. In 2007 Peter Goldstraw continued the search and inspected the Digby Road area including the disused Hamilton/ Coleraine rail reserve, the Chatsworth



Bandicoot dig

Road area, including roadside verges around the Bandicoot Motor Inn, the Lutheran Cemetery, the RMIT campus and adjacent private land; no bandicoot sign was found. The last area to be checked was north of the Hamilton Parklands on the east side of Hensley Park Road on Murray and Noel Gunn's properties.

In the late 1980's a couple of small bandicoot breeding enclosures were erected on Murray Gunn's property. 'I remember Kay Aldridge taking some great photos of a female with two young at foot in one of these enclosures' said Peter. There is no sign on these properties now and Murray Gunn hasn't seen any bandicoots for around eight

years.

Peter also contacted numerous people, including landholders and field naturalists who thought they had seen bandicoots recently. Upon questioning they conceded that it was probably several years ago when they last saw them.

Unfortunately it looks like the wild bandicoots of Hamilton are gone. A small population is thought to have been present in Hamilton in the early 2000's, but the prolonged drought since then would have been enough to drive them to extinction. Even Kay Aldridge concedes that she gave up on the wild population over two years ago.

Bandicoots Doing Well

Paul Stuart-Higgs

The Mount Rothwell Eastern Barred Bandicoot population appears to be increasing and doing well, despite a lack of cover and soil moisture. Due to the presence of Eastern Quolls, Southern Brown Bandicoots, Rufous Bettongs, Long-nosed Potoroos and Brushtail Possums, monitoring Eastern Barred Bandicoots by trapping is difficult, as captures of non target species are high. However, spotlighting Eastern Barred Bandicoots is relatively easy due to a lack of cover. Therefore, it has been proposed to suspend trapping at Mount Rothwell and instead spotlight a specific route at regular intervals throughout the year. A population estimate will not be possible using this technique but any significant changes in population size should be noticed.

Eastern Barred Bandicoots are known to be present within Zone 1 and 3 at Mt Rothwell, based on spotlight counts only. At the last trap session in November 2007,

two adult male bandicoots were caught in Zone 1, one recapture and one clean skin (wild bred with no micro-chip). Fourteen bandicoots were also spotlighted in one hour in November, including two female bandicoots with large pouches and on the 2nd January, a female Eastern Barred Bandicoot was seen with two young at foot in the eastern section of Zone 1. The lack of cover and soil moisture, and observed breeding indicates that Eastern Barred Bandicoots can cope well during dry conditions in the absence of foxes. Populations of Southern Brown Bandicoots and Long Nosed Potoroos are not doing as well. Their populations appear to be declining as Eastern Barred Bandicoots move into the areas previously dominated by these species.

No cat or fox incursions were made in 2007 and the predator barrier fence continues to be checked daily. No baiting has occurred on the

property, but over the last 12 months a concerted effort by neighbours and local landholders has resulted in 65 foxes being shot in the surrounding farmland. Support for Mt Rothwell from the local community has grown markedly, with most predator control now being carried out by local landholders.

A native predator has recently been observed taking advantage of the abundant wildlife at Mount Rothwell. On two occasions Wedge Tail Eagles were seen successfully attacking Rufous Bettong day nests.

Mt Rothwell has once again changed owner. Nigel Sharp has now purchased the property from Prudentia Investments and will continue the emphasis upon the Eastern Barred Bandicoot program. Management activities will be directed toward assisting this species and the recovery program.



Mt Rothwell founder

*This analysis
will determine
genetic
diversity and
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Tim Moves On

Richard Hill

Tim Burnard has left the Community Education position after a long association with the recovery team. Tim has produced the Warron newsletter regularly for the past several years. He successfully organised sponsorship of the recovery team's work in Hamilton through an ongoing relationship with Integrated Tree Cropping,

who assist in funding the predator control work at the Hamilton Parklands reintroduction site. Tim also produced a whole new range of extension materials for the project; a series of posters are held at Hamilton Institute of Rural Learning that are available for loan and download from the Eastern Barred Bandicoot website, as

well as a mobile display which is also available for loan. Tim updated the Eastern Barred Bandicoot website and organised the production and publication of annual reports on the recovery team's progress, these can also be downloaded from the website.

We wish Tim all the best for the future.



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The Eastern Barred Bandicoot Recovery Team was founded in 1989 after a continual decline was noted in the wild population. Bandicoots have since been reintroduced into eight sites but are now only known to be present at Hamilton Community Parklands, Mooramong and Mount Rothwell. Eastern Barred Bandicoots are considered critically endangered in Victoria and the population is estimated to be around 150 animals.

'Warron' is the Kirrae Whurrong word for the Eastern Barred Bandicoot. This newsletter was named 'Warron' in honour of Wayne Drew after his passing in 2001. Wayne was the 'Bandicoot Ranger' for Woodlands Historic Park and a member of the Kirrae Whurrong people from the western district of Victoria.



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